

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: DONOVAN

Serial Number: 09/371,354

Filed: August 10, 1999

For: METHOD FOR TREATING CARDIAC
MUSCLE DISORDERS



) Examiner: Bridget Bunner

) Art Unit: 1647

DECLARATION UNDER 37 C.F.R. SECTION 1.132

I, JOHN C. LONGHURST, declare as follows:

1. As I stated in my November 5, 2001 declaration in this patent application, in my opinion this patent application provides sufficient disclosure and teaching so that a cardiologist of ordinary skill can successfully treat bradycardia by administration of a botulinum toxin into an existing pericardial space of a human patient (i.e. in the presence of a pericardial effusion of sufficient magnitude to allow access to the pericardial space) to thereby increase the heart rate of a patient with symptomatic bradycardia.

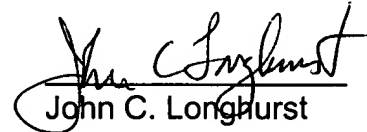
2. The conclusion in paragraph 1 above is based on the following well known facts: (1) the heart receives sympathetic and parasympathetic innervation (see e.g. page 1, lines 15-16 of the patent application); (2) sympathetic (adrenergic) stimulation of the heart increases heart rate (see e.g. page 1, line 16 of the patent application); (3) parasympathetic (cholinergic/vagal) stimulation of the heart decreases heart rate (see e.g. forth at page 1, lines 17-18 of the patent application); (4) local administration of botulinum toxin causes a reversible inhibition of acetylcholine release from cholinergic nerve terminals (see e.g. page 13, lines 1-6 of the patent application).

3. Hence it is reasonable to conclude, as set forth at page 22, lines 18-24 of the patent application, that for a patient with symptomatic bradycardia, vagal nerve inhibition and hence an increase in heart rate can be accomplished by administration of botulinum toxin into an existing pericardial space in the presence of a pericardial effusion of sufficient magnitude to allow access to the pericardial space, to thereby increase the heart rate of a patient with symptomatic bradycardia.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that any such willful false statements may jeopardize the validity of the above-identified application or any patent issuing therefrom.

Executed this 27 day of MARCH, 2002, at Irvine, California.


John C. Longhurst